TABLE 65

Federal outlays for research, development, and R&D plant, by agency: FYs 2013–22 (Dollars in millions)

| Agency  | 2013    | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      | 2022<br>(preliminary) |
|---|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------|
| All agencies  | 129,084 | 130,720   | 130,495   | 111,780   | 113,223   | 120,916   | 128,141   | 149,706   | 178,334   | 183,632               |
| Departments   |         |           |           |           |           |           |           |           |           |                       |
| Department of Agriculture                                     | 2,256   | 2,340     | 2,339     | 2,432     | 2,345     | 2,347     | 2,547     | 2,534     | 2,704     | 3,511                 |
| Agricultural Marketing Service                                | 5       | 6         | 7         | 7         | 7         | 7         | 8         | 7         | 7         | 8                     |
| Agricultural Research Service                                 | 1,086   | 1,035     | 1,086     | 1,124     | 1,155     | 1,124     | 1,189     | 1,330     | 1,478     | 1,948                 |
| Animal and Plant Health<br>Inspection Service                 | 31      | 37        | 34        | 39        | 39        | 39        | 39        | 40        | 42        | 44                    |
| Economic Research Service                                     | 79      | 77        | 74        | 94        | 82        | 87        | 82        | 82        | 85        | 91                    |
| Foreign Agricultural Service                                  | 1       | *         | 1         | *         | *         | 0         | 0         | 0         | 0         | 0                     |
| Forest Service  | 350     | 337       | 344       | 349       | 343       | 343       | 333       | 326       | 302       | 433                   |
| Grain Inspection, Packers, and<br>Stockyards Administration   | 6       | 8         | 8         | 8         | *         | na        | na        | na        | na        | na                    |
| National Agricultural Statistics<br>Service                   | 7       | 9         | 9         | 9         | 9         | 9         | 9         | 9         | 9         | 11                    |
| National Institute of Food and<br>Agriculture                 | 688     | 824       | 772       | 798       | 706       | 735       | 884       | 738       | 779       | 975                   |
| Natural Resources Conservation<br>Service                     | NA      | NA        | NA        | NA        | NA        | NA        | NA        | NA        | 1         | 4                     |
| Rural Business-Cooperative<br>Service                         | 3       | 6         | 4         | 4         | 3         | 3         | 3         | 3         | 0         | C                     |
| Department of Commerce  | 1,262   | 1,447     | 1,417     | 1,542     | 1,710     | 1,707     | 1,908     | 1,808     | 1,953     | 2,152                 |
| Census Bureau   | 131     | 201       | 142       | 170       | 220       | 110       | 96        | 111       | 109       | 149                   |
| National Institute of Standards and Technology                | 576     | 604       | 671       | 706       | 709       | 745       | 836       | 774       | 890       | 1,033                 |
| National Oceanic and<br>Atmospheric Administration            | 547     | 634       | 593       | 655       | 773       | 844       | 967       | 915       | 944       | 958                   |
| National Telecommunications<br>and Information Administration | 8       | 8         | 11        | 10        | 8         | 7         | 9         | 8         | 10        | 12                    |
| Department of Defense   | 65,107  | 63,646    | 62,251    | 42,868    | 42,212    | 45,238    | 48,489    | 56,339    | 63,487    | 68,574                |
| Defense Advanced Research<br>Projects Agency                  | 2,692   | 2,808     | 2,832     | 2,871     | 2,877     | 2,996     | 3,254     | 3,466     | 3,508     | 3,703                 |
| Defense Health Agency   | na      | NA        | NA        | NA        | NA        | NA        | NA        | 2,016     | 2,427     | 2,474                 |
| Department of the Air Force                                   | 24,858  | 23,316    | 23,442    | 7,260     | 7,600     | 11,194    | 12,035    | 9,243     | 10,726    | 10,454                |
| Department of the Army  | 7,817   | 7,653     | 7,306     | 6,805     | 7,631     | 7,011     | 9,293     | 10,868    | 11,440    | 12,524                |
| Department of the Navy  | 15,506  | 15,457    | 14,693    | 15,195    | 14,427    | 12,561    | 11,029    | 15,072    | 16,298    | 17,984                |
| Space Force   | na      | na        | na        | na        | na        | na        | na        | 4,338     | 4,393     | 4,166                 |
| Other defense agencies  | 14,234  | 14,413    | 13,978    | 10,737    | 9,676     | 11,476    | 12,877    | 11,337    | 14,696    | 17,269                |
| Department of Education                                       | 97      | 345       | 318       | 212       | 246       | 235       | 226       | 227       | 214       | 321                   |
| Department of Energy  Advanced Research Projects              | 9,861   | 11,033    | 12,295    | 12,853    | 13,187    | 16,672    | 15,164    | 12,600    | 14,593    | 16,056                |
| Agency—Energy Bonneville Power Administration                 | 144     | 187<br>16 | 245<br>16 | 238<br>16 | 269<br>14 | 251<br>NA | 247<br>NA | 270<br>NA | 308<br>NA | 373<br>NA             |
| Electricity Delivery and Energy                               | 14      | 10        | 10        | 10        | 14        | INA       | INA       | INA       | INA       | INF                   |
| Reliability   | 45      | 73        | 108       | 92        | 133       | 104       | 144       | 142       | 146       | 1,280                 |
| Energy Efficiency and Renewable<br>Energy                     | 721     | 964       | 1,047     | 1,145     | 1,284     | 1,549     | 1,461     | 1,502     | 1,552     | 1,648                 |
| Environmental Management                                      | 9       | 23        | 24        | 23        | 29        | 38        | 29        | 31        | 23        | 20                    |
| Fossil Energy   | 376     | 442       | 650       | 624       | 636       | 683       | 682       | 608       | 708       | 737                   |
| National Nuclear Security                                     | 0.000   | 4.004     | 4 54 5    | 4.006     | 4000      | 4.004     | F 750     | 0.007     | 4 700     | 4.00                  |
| Administration  | 3,930   | 4,394     | 4,515     | 4,806     | 4,926     | 4,324     | 5,752     | 3,987     | 4,702     | 4,633                 |
| Defense Programs  Naval Nuclear Propulsion                    | 2,643   | 2,981     | 3,063     | 3,082     | 3,256     | 2,726     | 3,635     | 2,326     | 2,881     | 2,641                 |
| Program   | 994     | 1,115     | 1,239     | 1,375     | 1,420     | 1,282     | 1,789     | 1,360     | 1,471     | 1,653                 |

TABLE 65

Federal outlays for research, development, and R&D plant, by agency: FYs 2013–22 (Dollars in millions)

| Agency   | 2013     | 2014     | 2015     | 2016   | 2017   | 2018     | 2019     | 2020    | 2021     | 2022<br>(preliminary) |
|--|----------|----------|----------|--------|--------|----------|----------|---------|----------|-----------------------|
| Office of Defense Nuclear  | 004      | 007      | 010      | 0.40   | 0.40   | 016      | 200      | 201     | 0.40     | 000                   |
| Nonproliferation   | 294      | 297      | 213      | 349    | 249    | 316      | 329      | 301     | 349      | 339                   |
| Nuclear Energy   | 263      | 324      | 760      | 833    | 811    | 846      | 1,110    | 1       | 455      | 521                   |
| Office of Cybersecurity, Energy<br>Security, and Emergency<br>Response | na       | na       | na       | na     | na     | 0        | 36       | 51      | 31       | 53                    |
| Office of Science  | 4.357    | 4,610    | 4,930    | 5,077  | 5,086  | 8,878    | 5,703    | 6,008   | 6,669    | 6,790                 |
| Department of Health and Human<br>Services                             | 29,431   | 30,564   | 29,624   | 29,663 | 31,386 | 33,219   | 35,427   | 54,910  | 73,019   | 68,013                |
| Administration for Children and Families                               | 3        | 3        | 3        | 3      | 2      | 1        | 2        | 2       | 5        | 4                     |
| Administration for Community<br>Living                                 | 0        | 0        | 76       | 83     | 83     | 83       | 83       | 92      | 107      | 111                   |
| Agency for Healthcare Research and Quality                             | 365      | 364      | 364      | 334    | 324    | 334      | 338      | 338     | 338      | 350                   |
| Agency for Toxic Substances and Disease Registry                       | 1        | 1        | 2        | 2      | 3      | 3        | 7        | *       | 11       | 11                    |
| Biomedical Advanced Research and Development Authority                 | NA       | NA       | NA       | NA     | NA     | NA       | 281      | 18,737  | 34,041   | 26,434                |
| Centers for Disease Control and<br>Prevention                          | 301      | 198      | 275      | 198    | 208    | 200      | 187      | 218     | 299      | 284                   |
| Centers for Medicare and<br>Medicaid Services                          | 20       | 34       | 24       | 30     | 30     | 231      | 6        | 31      | 36       | 36                    |
| Food and Drug Administration   | 345      | 372      | 359      | 486    | 464    | 456      | 470      | 443     | 563      | 639                   |
| Health Resources and Services Administration                           | 37       | 38       | 42       | 42     | 46     | 34       | 27       | 25      | 58       | 46                    |
| National Institutes of Health  | 28,341   | 29,536   | 28,462   | 28,468 | 30,209 | 31,860   | 34,009   | 35,008  | 37,545   | 40,080                |
| Office of the Secretary of Health and Human Services                   | 19       | 19       | 18       | 18     | 17     | 17       | 17       | 16      | 17       | 18                    |
| Office of the Assistant Secretary for Planning and                     | 10       | 10       | 10       | 10     | 17     | 17       | 17       | 16      | 17       | 10                    |
| Evaluation   | 19       | 19       | 18       | 18     | 17     | 17       | 17       | 16      | 17       | 18                    |
| Department of Homeland Security  | 614      | 856      | 704      | 732    | 1,026  | 1,077    | 1,069    | 936     | 566      | 668                   |
| Coast Guard  Countering Weapons of Mass  Destruction Office            | 22<br>NA | 25<br>74 | 26<br>71 | 63     | 69     | 18<br>65 | 23<br>81 | 5<br>85 | 10<br>87 | 68                    |
| Cybersecurity and Infrastructure<br>Security Agency                    | na       | na       | na       | na     | na     | 7        | 13       | 8       | 13       | 11                    |
| Science and Technology<br>Directorate                                  | 592      | 757      | 607      | 646    | 935    | 966      | 929      | 806     | 423      | 539                   |
| Secret Service   | NA       | NA       | NA       | NA     | NA     | 1        | 2        | 10      | 3        | 6                     |
| Transportation Security Administration                                 | NA       | NA       | NA       | NA     | NA     | 20       | 21       | 23      | 30       | 36                    |
| Department of Housing and Urban<br>Development                         | 64       | 67       | 56       | 75     | 71     | 71       | 63       | NA      | NA       | NA                    |
| Department of the Interior   | 705      | 745      | 813      | 865    | 864    | 754      | 804      | 827     | 876      | 1,146                 |
| Bureau of Indian Affairs   | NA       | NA       | NA       | NA     | NA     | 5        | 5        | *       | 5        | 4                     |
| Bureau of Land Management  | NA       | NA       | 16       | 18     | 18     | 21       | 21       | 21      | 9        | 12                    |
| Bureau of Ocean Energy<br>Management                                   | 31       | 48       | 50       | 73     | 73     | 77       | 73       | 73      | 70       | 78                    |
| Bureau of Reclamation  | 13       | 14       | 13       | 22     | 29     | 25       | 24       | 29      | 40       | 43                    |
| Bureau of Safety and<br>Environmental Enforcement                      | 18       | 18       | 28       | 34     | 23     | 8        | 15       | 11      | 14       | 14                    |
| Fish and Wildlife Service  | NA       | NA       | 32       | 32     | 24     | 24       | 24       | 26      | 23       | 23                    |

TABLE 65

Federal outlays for research, development, and R&D plant, by agency: FYs 2013–22 (Dollars in millions)

| ency  | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022<br>(preliminary) |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|
| Geological Survey                                       | 636    | 649    | 666    | 677    | 688    | 593    | 640    | 665    | 691    | 94                    |
| National Park Service                                   | 7      | 15     | 8      | 9      | 10     | 1      | 1      | 1      | 23     | 2                     |
| Office of Surface Mining<br>Reclamation and Enforcement | NA     | NA     | NA     | NA     | NA     | 1      | 1      | 1      | 0      |                       |
| Department of Justice                                   | 110    | 161    | 57     | 69     | 24     | 20     | 20     | 24     | 11     | 1                     |
| Bureau of Prisons                                       | 11     | 11     | 11     | 11     | 10     | 6      | 7      | 8      | *      |                       |
| Federal Bureau of Investigation                         | 30     | 10     | 13     | 13     | 2      | 3      | 1      | 5      | 4      |                       |
| Office of Justice Programs                              | 69     | 140    | 33     | 45     | 12     | 11     | 12     | 11     | 8      |                       |
| Department of Labor                                     | 15     | 12     | 13     | 8      | 3      | 3      | 3      | 3      | 3      |                       |
| Employee Benefits Security<br>Administration            | 8      | 6      | 5      | 3      | 1      | 1      | 1      | 1      | 1      |                       |
| Occupational Safety and Health<br>Administration        | 4      | 4      | 3      | 1      | 2      | 2      | 2      | 2      | 2      |                       |
| Pension Benefit Guaranty Corp.                          | 3      | 3      | 4      | 4      | 0      | 0      | NA     | NA     | NA     | N                     |
| Department of State                                     | 1      | NA     | 2      | 2      | 2      | 62     | 62     | 40     | 64     | (                     |
| Department of Transportation                            | 681    | 806    | 719    | 748    | 716    | 661    | 707    | 703    | 670    | 80                    |
| Federal Aviation Administration                         | 214    | 227    | 228    | 250    | 266    | 239    | 247    | 245    | 248    | 3(                    |
| Federal Highway Administration                          | 281    | 386    | 353    | 353    | 274    | 261    | 287    | 278    | 257    | 24                    |
| Federal Motor Carrier Safety<br>Administration          | 7      | 8      | 8      | 11     | 12     | 10     | 7      | 7      | 3      |                       |
| Federal Railroad Administration                         | 46     | 54     | 44     | 41     | 44     | 35     | 35     | 43     | 39     |                       |
| Federal Transit Administration                          | 11     | 9      | 17     | 7      | 41     | 36     | 40     | 20     | 29     |                       |
| National Highway Traffic Safety<br>Administration       | 95     | 93     | 46     | 49     | 55     | 53     | 64     | 67     | 60     |                       |
| Office of the Secretary of<br>Transportation            | 16     | 14     | 11     | 19     | 11     | 16     | 9      | 24     | 13     |                       |
| Pipeline and Hazardous Materials Safety Administration  | 7      | 16     | 12     | 19     | 13     | 10     | 18     | 18     | 21     |                       |
| Research and Innovative Technology Administration       | 5      | NA     | 1                     |
| Department of the Treasury                              | 74     | 76     | 67     | 85     | 10     | 38     | 49     | 47     | 54     |                       |
| Bureau of Engraving and Printing                        | 9      | 9      | 9      | 19     | 9      | 38     | 46     | 46     | 54     |                       |
| Internal Revenue Service                                | 65     | 64     | 54     | 65     | 0      | 0      | 0      | 0      | NA     | 1                     |
| Mint  | *      | 3      | 3      | 2      | 1      | 0      | 2      | *      | *      |                       |
| Department of Veterans Affairs                          | 639    | 608    | 612    | 583    | 594    | 644    | 685    | 778    | 1,475  | 1,6                   |
| Other agencies  |        |        |        |        |        |        |        |        |        |                       |
| Administrative Office of the U.S.                       | NA     | NA     | NA     | 7      | 8      | 7      | 6      | 5      | 4      |                       |
| Agency for Global Media                                 | NA     | NA     | NA     | NA     | NA     | NA     | 6      | 5      | 5      |                       |
| Agency for International Development                    | 125    | 60     | 212    | 193    | 192    | 167    | 221    | 194    | 82     |                       |
| Appalachian Regional Commission                         | *      | 1      | 1      | *      | 1      | 1      | 1      | 1      | 1      |                       |
| Consumer Product Safety Commission                      | 1      | 2      | 2      | 2      | 2      | 1      | 1      | *      | *      |                       |
| Environmental Protection Agency                         | 530    | 538    | 521    | 513    | 498    | 492    | 490    | 493    | 526    | 5                     |
| Federal Communications Commission                       | 5      | 7      | 5      | 5.5    | 7      | 5      | 2      | 2      | 0      |                       |
| Federal Trade Commission                                | 3      | 3      | 2      | 3      | 6      | 6      | 6      | 6      | 8      |                       |
| Library of Congress                                     | 1      | 1      | 1      | 2      | 2      | 3      | 2      | 3      | 3      |                       |
| National Aeronautics and Space Administration           | 11,331 | 11,262 | 12,360 | 12,013 | 10,616 | 10,852 | 13,338 | 10,508 | 11,133 | 12,2                  |
| National Archives and Records                           | 11,031 | 11,202 | 12,300 | 12,013 | 10,010 | 10,032 | 13,330 | 10,508 | 11,133 | 1 ∠,∠                 |
| Administration  | 1      | 1      | 1      | 1      | 1      | 1      | 1      | *      | NA     | 1                     |

TABLE 65

Federal outlays for research, development, and R&D plant, by agency: FYs 2013–22 (Dollars in millions)

| Agency  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022<br>(preliminary) |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|
| National Science Foundation                                     | 5,703 | 5,666 | 5,474 | 5,468 | 5,650 | 5,664 | 5,741 | 5,793 | 5,917 | 6,711                 |
| Nuclear Regulatory Commission                                   | 85    | 91    | 71    | 86    | 67    | 78    | 75    | 70    | 77    | 79                    |
| Patient-Centered Outcomes<br>Research Trust Fund                | 74    | 94    | 244   | 354   | 1,345 | 492   | 579   | 470   | 460   | 481                   |
| Postal Service  | NA    | NA    | 28    | 29    | 73    | 53    | 27    | 18    | 15    | 16                    |
| RESTORE Act Centers of<br>Excellence Research Grants<br>Program | na    | 7     | 4     | 3                     |
| Smithsonian Institution   | 251   | 231   | 229   | 237   | 243   | 263   | 269   | 276   | 288   | 297                   |
| Social Security Administration                                  | 57    | 60    | 59    | 129   | 110   | 72    | 146   | 70    | 105   | 99                    |
| Tennessee Valley Authority                                      | NA    | NA    | NA    | NA    | 6     | 13    | 10    | 8     | 17    | 41                    |

<sup>\* =</sup> amount greater than \$0 but less than \$500,000; na = not applicable; agency or subagency did not exist as such or in that organization in that year. NA = not available; data were not collected at that level for that fiscal year.

## Note(s):

Because of rounding, detail may not add to total. Only those agencies and subdivisions that had outlays in variables represented by this table appear in the table. Beginning with FY 2016, the totals reported for development outlays represent a refinement to this category by more narrowly defining it to be "experimental development." Most notably, totals for development do not include the Department of Defense (DOD) Budget Activity 7 (Operational Systems Development) outlays. Those funds, previously included in DOD's development outlay totals, support the development efforts to upgrade systems that have been fielded or have received approval for full-rate production and anticipate production funding in the current or subsequent fiscal year. Therefore, the data are not directly comparable with totals reported in previous years. FYs 2020 and 2021 outlays include additional funding provided by supplemental COVID-19 pandemic-related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act). See technical table A-2 for additional notes associated with the agencies listed in this table.

## Source(s):

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.